Policy Guidance

"Through our joint federal-state partnership, and with science as our guide, we are taking a comprehensive approach to tackling California's water problems..."

"Science will guide how to best restore the ecosystem and how much water can be exported."

From July 25, 2012 Governor Brown and Obama Administration joint announcement on the proposed path forward for the Bay Delta Conservation Plan and California's water future.

Delta Reform Act - Delta Plan

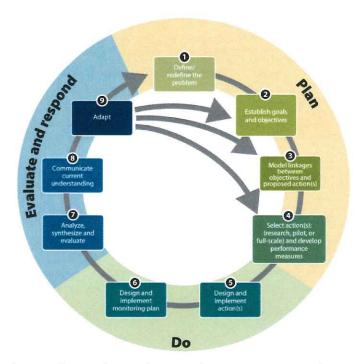
- Coequal Goals to be achieved through
 - Best Available Science (BAS) and Adaptive
 Management (AM)
- BAS required for covered actions; AM required for ecosystem restoration and water management covered actions (GP 1)
- Council will use both for implementing and updating the Delta Plan

Delta Plan Guidance: Best Available Science

- Knowledge base for making sound decisions; foundational for adaptive management
- Specific to the decision being made and the time frame available for making that decision
- Developed through a process that meets the criteria of
 - (1) relevance, (2) inclusiveness, (3) objectivity, (4) transparency and openness, (5) timeliness, and (6) peer review
- Consistent with the scientific process

Delta Plan Guidance: Adaptive Management

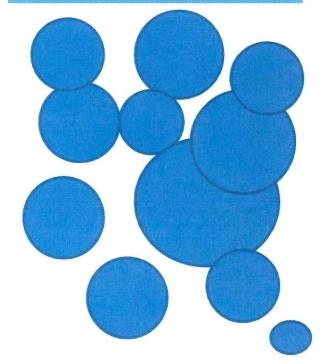
- Defined in Delta Reform Act
- Overarching 3-phase, 9-step framework



From Proposed Final Draft Delta Plan, Chapter 2 and Appendix A

Changing Face of Science in the Delta

Science Today



Science is conducted by:

Federal Agencies
State Agencies
Local Agencies
Universities
Consultants
NGOs, Water Agencies . .

Science Tomorrow



One Delta
One Science

Examples of Collaboration:

IEP Work Teams
California Water and Environmental
Modeling Forum
Research Projects – CASCADE
Regional Monitoring Program
CEDEN

Solution: Delta Science Plan

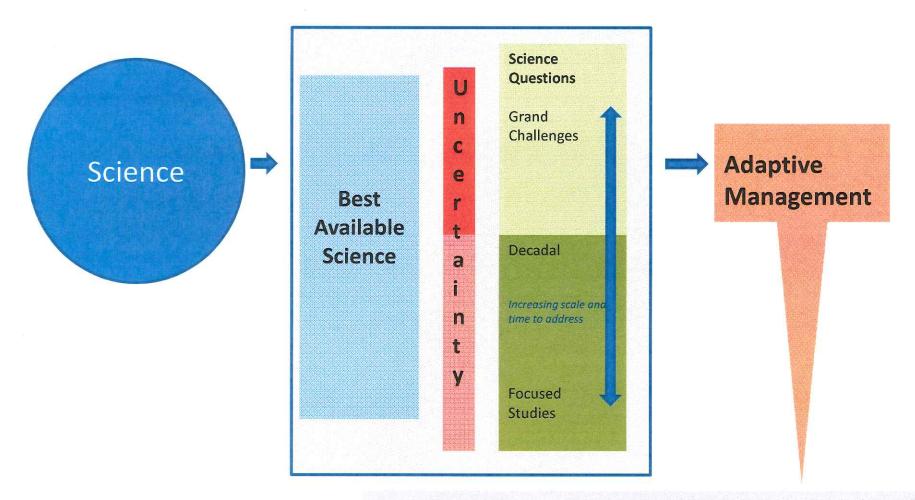
- Organize & integrate Delta science activities to
 - Provide Best Available Science
 - Support Adaptive Management

One Delta, One Science

The Delta Science Plan will

- Include strategies/approaches for:
 - Policymakers' Grand Challenges
 - Institutional and organizational structure for science
 - Synthesis of scientific knowledge
 - Uncertainties and prioritizing research
 - Data management & accessibility
 - Shared computer models
 - Knowledge bank
 - Recommendations on an integrated monitoring approach

Path of Science in the Delta



Decision making

Delta Plan Implementation; SWRCB Flow Objectives; SWP and CVP Biological Opinions; BDCP,

Science Supporting AM

Continuously refine Communicate qualitative Evaluate and respond current state of (conceptual) and knowledge to quantitative (e.g., decision makers simulation) models Identify critical uncertainties Use models to inform performance measure Analyze data, 0 development Design and implement synthesize state of knowledge, and Do evaluate progress based on Design and implement performance Research Actions to Use models to inform reduce scientific measures monitoring design. uncertainties Collect, manage and share data

POLICY is a Team Sport

Policy and Management Actions

?

Early Engagement
Continuous Dialogue
Innovative Approaches

Science

SCIENCE is a Team Sport Tim Killeen, NSF. 2012.